REMARKS/ARGUMENTS

In the Office Action mailed February 1, 2005, claims 1-26 were rejected. Applicant has thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action. All the pending claims at issue are believed to be patentable over the cited references. It should be noted contrary to the Examiner's Interview Summary dated January 11, 2005, Applicant elected the invention of Group I, claims 1, 11, 14 and 24, which includes the mixture **A+B+D+E+G** and further to correct the Examiner's Interview Summary, it was agreed that for example the substitution of one claimed refrigerant **A** for any other claimed refrigerant **A** within the Markush Group would be substantially equivalent and likewise per each claimed refrigerant group **B**, **D**, **E** and **G** accordingly. See *MPEP §2173.05(h).* Thus, the substituted refrigerant must fall within each respective claimed Markush Group.

CLAIM REJECTIONS – 35 U.S.C. § 112

Examiner rejected claims 2-26 under 35 U.S.C §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. It is noted that the 112, second rejection with regard to claims 14-26 is unwarranted since a "mixture" is properly claimed in independent claim 14 accordingly. In light of the amendment to claims, Applicant hereby respectfully requests that the rejection to these claims be removed.

CLAIM REJECTIONS – 35 U.S.C. § 102(e)

The Examiner rejected claims 1-26 under 35 U.S.C. §102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Podtchereniaev *et al.*, United States Patent No. 6,502,410 (hereinafter referred to as "Podtchereniaev"). In light of the following remarks, Applicant respectfully submits that these claims are allowable.

Initially, Applicant notes that it is axiomatic that to qualify as an anticipation under Section 102, the cited reference must "bear within its four corners adequate directions for the practice of the patent invalidated." (See, for example, Dewey & Almay Chemical Co. v. Mimex Co., Inc., 52 U.S.P.Q. 138 (2nd Cir. 1942)). Applicant respectfully submits that Podtchereniaev embodies no such directions.

More particularly, Applicant respectfully submits that Podtchereniaev does not disclose the claimed mixture components exclusively.

Examiner states that Podtchereniaev discloses a mixture of argon, R-14, R-23, R-236fa and R-245fa. Podtchereniaev discloses a refrigerant mixture having six or more components comprising at least one of argon or nitrogen; R-14; R-23; R-125; R-134a; and at least one of E-347, R-4112, R-236fa and R-245fa. *See FIGS. 7 & 8.*

Applicant claims a method and a mixture having components consisting of argon; R-14; any one of R227ea, R236fa, RC318, R600 and R600a; any one of R236ea, R245ca, R245fa; and any one of R116, R170, R508a, R508b and R1150 as amended.

Applicant notes that Podtchereniaev, first and foremost, does not disclose a mixture having components consisting of argon; R-14; any one of R227ea, R236fa, RC318, R600 and

R600a; any one of R236ea, R245ca, R245fa; and any one of R116, R170, R508a, R508b and R1150.

In addition, Podtchereniaev is silent on the use of refrigerant R50 as recited in claims 4-8, 10, 12, 13, 17-21, 23, 25 and 26. The Examiner failed to apply any prior art in this regard and therefore, these claims are presumed allowable.

Furthermore, Podtchereniaev discloses a mixture "comprising" various components as described above which is an open-ended phraseology while Applicant discloses a mixture that "consists of" various components which is a closed-ended phraseology. A claim which uses the transitional phrase "consist of" or "consisting of" excludes any element, step or ingredient not specified in the claim. See *MPEP §2111.03*. Thus, it cannot be said that Podtchereniaev teaches or suggests the claimed invention.

In light of the foregoing arguments, withdrawal of the rejection of claims 1-26 under 35 U.S.C. § 102(e) as being anticipated by Podtchereniaev is respectfully requested.

The Examiner rejected claims 1-26 under 35 U.S.C. §102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Flynn, United States Patent No. 6,560,981 (hereinafter referred to as "Flynn"). In light of the following remarks, Applicant respectfully submits that these claims are allowable.

Initially, Applicant notes that it is axiomatic that to qualify as an anticipation under Section 102, the cited reference must "bear within its four corners adequate directions for the practice of the patent invalidated." (See, for example, Dewey & Almay Chemical Co. v. Mimex Co., Inc., 52 U.S.P.Q. 138 (2nd Cir. 1942)). Applicant respectfully submits that Flynn embodies no such directions.

More particularly, Applicant respectfully submits that Flynn does not disclose the claimed mixture components exclusively.

Examiner states that Flynn discloses a mixture of argon, R-14, R-23, R-236fa and R-245fa as well as R-236ea and R-245ca. Flynn discloses a refrigerant mixture having components comprising at least one of argon or nitrogen; R-14; at least one of R-23 or ethane; at least one of R-125, or R-143a, or R-32, or R-134a, or R-227ea, or R-218 or R-152a; and at least one of R-236fa, or R-245fa, or R-236ea or R-245ca, or E-347, or R-4112 or R-4310meec. *See Cols 7 & 8, Table 1.*

Applicant claims a method and a mixture having components consisting of argon; R-14; any one of R227ea, R236fa, RC318, R600 and R600a; any one of R236ea, R245ca, R245fa; and any one of R116, R170, R508a, R508b and R1150 as amended.

Applicant notes that Flynn, first and foremost, does not disclose a mixture having components consisting of argon; R-14; any one of R227ea, R236fa, RC318, R600 and R600a; any one of R236ea, R245ca, R245fa; and any one of R116, R170, R508a, R508b and R1150.

In addition, Flynn is silent on the use of refrigerant R50 as recited in claims 4-8, 10, 12, 13, 17-21, 23, 25 and 26. The Examiner failed to apply any prior art in this regard and therefore, these claims are presumed allowable.

Furthermore, Flynn discloses a mixture "comprising" various components as described above which is an open-ended phraseology while Applicant discloses a mixture that "consists of" various components which is a closed-ended phraseology. A claim which uses the transitional phrase "consist of" or "consisting of" excludes any element, step or ingredient not specified in

the claim. See *MPEP §2111.03*. Thus, it cannot be said that Flynn teaches or suggests the claimed invention.

In light of the foregoing arguments, withdrawal of the rejection of claims 1-26 under 35 U.S.C. § 102(e) as being anticipated by Flynn is respectfully requested.

CLAIM REJECTIONS – 35 U.S.C. § 103(a)

The Examiner rejected claims 1-26, alternatively, under 35 U.S.C. § 103(a) as being obvious over Podtchereniaev.

The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. *MPEP §2142*. To establish a prima facie case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, to modify the references or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, the prior art must teach all the claim limitations. *MPEP §2142*. In light of the argument regarding the Podtchereniaev reference, the reference does not teach or suggest all the claim limitations of the present application.

Applicants respectfully point to the final prong of the test, which states the prior art must teach all the claim limitations. At the very least, the reference does not teach all of the limitations of independent claims 1 and 14 because of the arguments set forth regarding the Podtchereniaev reference in the anticipation section of this response.

Additionally, Applicant note that if the Podtchereniaev reference were modified to read on the present invention, the refrigerant mixture(s) of Podtchereniaev would be destroyed. Thus, Podtchereniaev teaches away from Applicant's claimed invention.

As a result, the obviousness rejection is improper since independent claims 1 and 14 are allowable all claims which depend from it are allowable. Therefore, Applicant respectfully requests that the rejection to claims 1-26, which are based upon the Podtchereniaev reference, be removed.

The Examiner rejected claims 1-26, alternatively, under 35 U.S.C. § 103(a) as being obvious over Flynn.

The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. *MPEP §2142.* To establish a prima facie case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, to modify the references or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, the prior art must teach all the claim limitations. *MPEP §2142.* In light of the argument regarding the Flynn reference, the reference does not teach or suggest all the claim limitations of the present application.

Applicants respectfully point to the final prong of the test, which states the prior art must teach all the claim limitations. At the very least, the reference does not teach all of the limitations of independent claims 1 and 14 because of the arguments set forth regarding the Flynn reference in the anticipation section of this response.

Additionally, Applicant notes that the Flynn reference teaches the use of flammable refrigerants, R-32, R-143a, R-152a, and ethane as well as fully fluorinated compounds, R-218 and R-4112. These clearly cannot be said to be non-HCFC refrigerants as taught in the present invention. Thus, Flynn teaches away from Applicant's claimed invention.

As a result, the obviousness rejection is improper since independent claims 1 and 14 are allowable all claims which depend from it are allowable. Therefore, Applicant respectfully requests that the rejection to claims 1-26, which are based upon the Flynn reference, be removed.

CONCLUSION

In view of the foregoing remarks, Applicant respectfully requests the withdrawal of the rejections. If, for any reason, the Examiner disagrees, please call the undersigned agent at 202-861-1703 in an effort to resolve any matter still outstanding before issuing another action. The undersigned agent is confident that any issue which might remain can readily be worked out by telephone.

In the event this paper is not time filed, Applicant petitions for an appropriate extension of time. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 50-2036.

Respectfully submitted,

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